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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,186	11/03/2003	Daniel Ziwica	PWNOP0101US	3982

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EXAMINER
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TADESSE, YEWEBDAR T

ART UNIT	PAPER NUMBER
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1734

DATE MAILED: 01/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/700,186

Applicant(s)

ZIWICA ET AL.

Examiner

Yewebdar T Tadesse

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/19/04&4/19/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. Claim 6 is objected to because of the following informalities: on line 3, the word "linear" is misspelled as "liner". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. Claims 8 and 11-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 8 and 11 recite the limitation "mounting" in claims 1 and 10 respectively.

There is insufficient antecedent basis for this limitation in the claim.

Claims 11 and 12 recite the limitation "guide arm" in claim 10. There is insufficient antecedent basis for this limitation in the claim.

Claim 11 recites the limitation "first and/or second linear axle" in claim 10. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-4, 8 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Gernez (US 4,381,729). With respect to claim 1, Gernez discloses (see Figs 1-5) a powder-depositing installation comprising a powder spray device (gun 41) provided with a longitudinal axis and a principal spraying direction that differs from the longitudinal axis (see Figs 2 and 4 for the gun provided along the longitudinal axis; and Figs 1, 3 and 5b and 5d for the gun provided along the principal spraying directions) a carrier element (nozzle holder 24 with bar 33), wherein the powder spray device (gun 41) is supported in such a manner as to be capable of being rotated with respect to the carrier element (nozzle holder 24 with bar 33) about the rotation axis (see Figs 2, 4, 5a and 5c)

and the principal spraying direction of the powder (see Figs. 1, 3, 5b and 5d) differs from the rotation axis.

As to claim 2, In Gernez (see Figs. 2 and 4) the rotation axis runs parallel to the longitudinal axis of the powder spray device (gun 41).

As to claim 3, in Gernez the powder spray device is provided with a nozzle (26) with the alignment of the nozzle (see Fig 5) defines the principal spraying direction.

As to claim 4, the powder spray device is designed as a spray pistol (gun 41).

As to claim 8, in Gernez the mounting (bar 33) rotated by two jacks 34 and 35 for rotating the spray device (nozzle 26).

With respect to claim 10, Gernez discloses (see column 3, lines 55-58) a plurality of powder spray devices (guns).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1-8, 10-14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shutic et al (6,730,167) in view of Gernez (US 4,381,729).

As to claims 1-3 and 8, Shutic et al discloses (see Figs 1 and 4) an installation for coating a workpiece with powder comprising a powder spray device (guns 20 as a spray pistol), a spray booth (10), a carrier element provided with a mounting (22) and a guide arm (gun mover 24), Shutic et al lacks teaching a powder spray device capable of rotating with respect to the carrier element about a rotational axis parallel to the longitudinal axis of the spray device and a principal spraying direction defined by the alignment of the nozzle. Gernez discloses (see Figs 1-5) a powder-depositing installation comprising a powder spray device (gun 41) provided with a longitudinal axis and a principal spraying direction that differs from the longitudinal axis (see Figs 2 and 4 for the gun provided along the longitudinal axis; and Figs 1, 3 and 5b and 5d for the gun provided along the principal spraying directions) a carrier element (nozzle holder 24 with bar 33) provided with a drive (two jacks 34 and 35), wherein the powder spray device (gun 41) is supported in such a manner as to capable of being rotated with respect to the carrier element (nozzle holder 24 with bar 33) about the rotation axis (see Figs 2, 4, 5a and 5c) and the principal spraying direction of the powder (see Figs, 1, 3, 5b and 5d) differs from the rotation axis. Additionally, In Gernez (see Figs. 2 and 4) the rotation

axis runs parallel to the longitudinal axis of the powder spray device (gun 41) and the powder spray device is provided with a nozzle (26) with the alignment of the nozzle (see Fig 5) defines the principal spraying direction. It would have been obvious to one of ordinary skill in the art to include a powder spray device capable of rotating with respect to the carrier element about a rotational axis and a principal spraying direction in Shutic et al to completely cover the inside surfaces of the hollow part of substrate with the coating powder as taught by Gernez (see column 1, lines 43-57).

With respect to claim 4, in Shutic et al (see Fig 4) the spray device is designed as a spray pistol (gun).

As to claim 5, the mounting (gun mount 22) and guide arm (gun mover 24) are arranged outside the spray booth in Shutic et al system.

As to claims 6-7, in Shutic et al (see Fig 4) the guide arm (gun mover 24) provided with a first and second linear axle performing translatory movements of the spray device along a first axis and a second axis (platform 64 and oscillator 26 allowing the gun to translate back and forth and to be raised and lowered.

As to claims 10-13, Shutic et al discloses (see Fig 4) a plurality of spray devices (guns 20) connected with guide arm (gun mover 24) by the mounting (frame 22) and first and/or second linear axle (platform 64 and oscillator 26); and a plurality of powder spray devices (guns 20) arranged on a first and second longitudinal sides of the booth (see Fig 4).

With respect to claim 14, Shutic et al discloses (see Fig 1) a control unit (control system 48) for translational movement of the guns. However, a control unit of the

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rotation of the powder spray device is not taught in Shutic et al. Gernez discloses a nozzle holder rotation control unit. It would have been obvious to one of ordinary skill in the art to include control unit for the rotation of the powder spray device in Shutic et al to control the layer of the powder deposited on the substrate.

As to claim 15, Shutic et al discloses a third linear axel (gun mover bases 66 supported on wheel assemblies) for arranging the guide arm (gun mover 24) in a mobile manner.

10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shutic et al (6,730,167) in view of Gernez (US 4,381,729) (or Gernez (US 4,381,729 by itself) as applied to claim 8 above, and further in view of An et al (US 6,033,135). Shutic et al as modified lacks teaching a step motor type drive with a mounting rotation of the powder spray device. It is well known in the art to use a step-motor to rotate a spray device along the mounting means. For instance, An et al discloses (see Fig 12 and column 8, lines50-51) a step motor connected to a mounting (pipe79) to rotate a spray device (73). It would have been obvious to one of ordinary skill in the art to include a step motor in Gernez or Shutic et al as modified by Gernez to attain the desired movement of the spray device.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yewebdar T Tadesse whose telephone number is (571)




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272-1238. The examiner can normally be reached on Monday-Friday 8:00 AM-4: 30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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YTT

  
**MARK A. OSELE**  
**PRIMARY EXAMINER**